

Claims

1. An indirect heater assembly comprising a radiant tube heater, and air flow generating means arranged to generate an air flow over the radiant tube heater so as to provide convected heating.
2. An indirect heater assembly according to claim 1, in which the heater assembly is located within a housing.
3. An indirect heater assembly according to claim 2, in which the housing has a wall around the radiant tube heater so as to constrain the air flow over the tube heater, the wall defining an air flow pathway over the heater and an outlet to direct the hot air to the surroundings.
4. An indirect heater assembly according to claim 3, in which the housing further includes a heating duct which is connected to the outlet so as to direct hot air to a particular part of the surroundings.
5. An indirect heater assembly according to any preceding claim, in which the radiant tube heater comprises an elongate tube.
6. An indirect heater assembly according to any preceding claim, in which the indirect heater assembly comprises a spiral tube provided at an end of the radiant tube heater.
7. An indirect heater assembly according to claim 6, in which the spiral tube preferably comprises a straight portion and a spiral portion downstream of the straight portion and arranged around the straight portion.
8. An indirect heater assembly according to claim 7, in which the spiral portion is arranged coaxially around the straight portion.
9. An indirect heater assembly according to claim 7 or 8, in which the radiant tube heater is connected to the straight portion of the spiral tube by a U-shaped tube.

10. An indirect heater assembly according to any of claims 7 to 9, in which the spiral portion is made from a flexible material to enable it to be wrapped around the straight portion.

11. An indirect heater assembly according to any of claims 7 to 10, in which the straight portion is connected to the spiral portion by a suitable joint to provide an air tight seal.

12. An indirect heater assembly according to any of claims 7 to 10, in which the spiral portion is connected directly to the spiral portion with no need for a joint, thereby reducing the number of parts.

13. An indirect heater assembly according to any preceding claim, in which air flow generating means comprises an impeller to draw air over the radiant heater tube or to blow air over the radiant heater tube.

14. An indirect heater assembly according to any preceding claim, in which the air flow generating means is located close to the connection between the spiral portion and the straight portion so as to cool the connection in use.

15. An indirect heater assembly according to any preceding claim, in which the assembly includes means for removing the products of combustion from the heater tube.

16. An indirect heater assembly according to claim 15, in which the removing means includes an exhaust duct located in fluid communication with the heater tube so as to direct gaseous combustion products away from the surrounding environment.

17. An indirect heater assembly according to claim 16, in which the exhaust duct is located at an open end of the heater tube.

18. An indirect heater assembly according to any of claims 2 to 17, in which housing includes wheels located at one or both ends.

19. An indirect heater assembly according to any preceding claim, in which the radiant tube heater has a mesh burner head.

20. An indirect heater assembly according to any preceding claim, in which the assembly includes a fresh air inlet duct which supplies air to the radiant tube heater.

21. A radiant tube heater, the heater having a heater tube, the tube having a straight portion and a spiral portion arranged around the straight portion.

22. A radiant tube heater according to claim 21, in which the spiral portion is arranged substantially co-axially around the straight portion.

23. A radiant tube heater according to claim 21 or 22, in which the heater includes an exhaust duct located in fluid communication with the heater tube so as to direct gaseous combustion products away from the surrounding environment.

24. A radiant tube heater according to claim 23, in which the exhaust duct is located at an open end of the heater tube.

25. A radiant tube heater according to any of claims 21 to 24, in which the heater includes means, for example wheels located at one or both ends.

26. A radiant tube heater according to any of claims 21 to 25, in which a mesh burner head is provided.